MEMORANDUM

SUBJECT: Tebuthiuron Use Closure Memo
(PC Code 105501)

FROM: Michael McDavit, Acting Chief
Special Review Branch

TO: Margaret Stasikowski, Director
Health Effects Division

Elizabeth Leovey, Acting Director
Environmental Fate and Effects Division

This memo serves as the Tebuthiuron Use Closure Memo and clarifies Tebuthiuron uses for the TRED risk assessment.

The SMART meeting for Tebuthiuron was held May 2, 2001. The updated Quantitative Usage Analysis (QUA) for Tebuthiuron, which is developed by the Economic Analysis Branch of the Biological and Economic Analysis Division is scheduled for completion on September 9, 2001. Attached is the most recent version of the QUA.

Tebuthiuron is a relatively nonselective, soil activated herbicide that acts by inhibiting photosynthesis. It is used to control broadleaf and woody weeds, grasses, and brush on terrestrial feed crop sites (pastures and rangeland) primarily in Texas, Oklahoma, and New Mexico and on terrestrial non-food crop sites including airports/landing fields, outdoor industrial areas, non-agricultural rights-of-way, fencerows, hedgerows, uncultivated areas/soils, and under paved roads and sidewalks in areas where no future landscaping is planned. Primary uses include rangelands and near railroads and other industrial facilities. Single active ingredient formulation include granular pelleted/tableted, wettable powder, water dispersible granules and technical grade/solid products. Three multiple active ingredient formulations (granulars) also are registered. All formulations may be applied as broadcast, banded or spot treatments using ground equipment. The pelleted/tableted formulation also may be applied using aerial equipment.

The LUIS report indicates no limit on the number of applications per season or crop cycle, but, the registrant provided information on the normal maximum and typical application use rates of Tebuthiuron at the SMART meeting. The attached tables reflect the use information (note: "NS" not specified) reflecting labeling current as of 02/21/2001 in the LUIS report and the registrants' use information.

The risk assessment for Tebuthiuron will be based on the use sites listed in the LUIS report. Based on our understanding, this information will allow EFED to submit it's draft TRED chapter to SRRD on December 1, 2001, and HED to submit it's draft TRED chapter to SRRD on February 22, 2002, as it is currently scheduled.

If you have any questions or concerns regarding this memorandum, please contact Wilhelmena Livingston at (703) 308-8025.

cc: Paula Deschamp
Virginia Dobozy
Sheila Piper
Ken Dockter
Kevin Costello
Mark Corbin
Steve Smearman
Dan Rosenblatt

Range and Pasture Typical vs. Maximum Use Rates

Use Site and Product Name	Application Method and Equipment	Registrant Maximum Application Per Use Rate	Reflecting Label Maximum Application Per Use	Registrant Typical Use Rate	Reflecting Label Typical Use Rate

Range and Pasture Oak Desert Species Sand Shinnery Spike 20P (20% pellet)	Broadcast and spot treatment Applied by hand using canister delivery, ground and aerial application	For vulnerable sites, maximum application rate is dependent upon annual precipitation: • <20" in annual precipitation: no more than 1 lb a.i./acre once every 3 years • >20" in annual precipitation: no more than 2 lbs a.i./acre once every 3 years For non-vulnerable sites, maximum application rate is dependent upon annual precipitation: • <20" in annual precipitation no more than 2 lbs once every 3 years and no more than two treatments totaling 6 lbs a.i./acre in any 6-year period • >20" in annual precipitation: on more than 4 lbs a.i./acre once every 3 years and no more than two treatments totaling 6 lbs a.i./acre in any 6-year period	4 lbs a.i./acre/NS for broadcast treatment 4 lbs a.i./acre/yr for spot treatment	Typical application is once every 10-20 years 1.0-1.4 lbs for oak use 1.5 lbs for desert species 0.3-0.5 lbs for sand shinnery	NS

Industrial Vegetation Management Typical vs. Maximum Use Rates

Use Site and Product Name	Application Method and Equipment	Registrant Maximum Application Per Use Rate	Reflecting Label Maximum Application Per Use	Registrant Typical Use Rate	Reflecting Label Typical Use Rate
Industrial Vegetation Management Non-Cropland Railroad Industrial General Woody Plant Spike 80DF (80% dry flowable)	Broadcast/Banded and spot Applied by backpack sprayer, handgun sprayer, and groundboom sprayer	For vulnerable sites, maximum application rate is dependent upon annual precipitation: • <20" in annual precipitation for broadcast/banded and spot application: no more than 1 lb a.i./acre once every 3 years • >20" in annual precipitation for broadcast/banded and spot application no more than 2 lb a.i./acre once every 3 years For non-vulnerable sites, maximum application rate is dependent upon annual • <20" and >20" in annual precipitation for broadcast/banded application for vegetation control: no more than 4 lbs a.i./acre once every 3 years and no more than two treatments totaling 6 lbs. a.i./acre in any 6-year period; for total vegetation control and maintenance of bare ground (ground broadcast only) applied only once per year, however no more than 6 lbs a.i./acre may be applied in any 3-year period. • <20" and >20" in annual precipitation for spot application no more than 6 lb a.i./acre once every three years	Maximum application rate is 6-8 lbs/acre, depending on the use site	Typically applied to railroad and industrial annually for 2-3 years followed by rotation to other products Typically applied to general woody plant once every 3-8 years 1.6-2.4 lbs for railroad use 1.6-2.4 lbs for industrial use 3-4 lbs for general woody plant use	NS